



PATENT  
Attorney Docket No. MTP-024

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Watkins *et al.*  
SERIAL NO.: 09/709,947 GROUP NO.: 1642  
FILING DATE: November 10, 2000 EXAMINER: A. Harris, Ph.D.  
TITLE: Materials and Methods for Detection and Treatment of Breast Cancer

A.  
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(K)  
11-22-22

Commissioner for Patents  
Washington, D.C. 20231

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AMENDMENT AND RESPONSE TO RESTRICTION REQUIREMENT

Sir:

This paper is responsive to the Office action mailed from the U.S. Patent and Trademark Office on March 26, 2002. Applicants enclose a petition and fee to extend the time for response up to and including September 26, 2002.

AMENDMENT

Please cancel claims 1-8, 21-40 and 56, 62 without prejudice to Applicants' right to pursue their subject matter in this application or in a related application.

Please amend claims 9, 15, and 41 to read as follows:

9. (Amended) A method of diagnosing cancer in an individual comprising detecting in a sample isolated from the individual the presence of a cancer-associated protein of about 28 kD that

(i) binds in the presence of 50 mM sodium phosphate, pH 7.0, to an anion exchange resin comprising quaternary ammonium groups and

A1 (ii) elutes from the resin in the presence of 50 mM sodium chloride in 50 mM sodium phosphate, pH 7.0, wherein the cancer-associated protein is indicative of cancer in the individual.

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15. (Amended) A method of diagnosing cancer in an individual, the method comprising the steps of:

A2 (a) contacting a sample from the individual with a binding moiety that binds specifically to a cancer-associated protein to produce a binding moiety-cancer-associated protein complex, wherein the binding moiety binds specifically to a cancer-associated protein of about 28 kD that (i) binds in the presence of 50 mM sodium phosphate, pH 7.0, to an anion exchange resin comprising quaternary ammonium groups and (ii) elutes from the resin in the presence of 50 mM sodium chloride in 50 mM sodium phosphate, pH 7.0; and

(b) detecting the complex, which is indicative of the presence of cancer in the individual.

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41. (Amended) A kit for detecting the presence of breast cancer or for evaluating the efficacy of a therapeutic treatment of a breast cancer, the kit comprising in combination:

a receptacle for receiving a tissue or body fluid sample from a mammal;

A3 a binding moiety which binds specifically to a breast cancer-associated protein comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 1; SEQ ID NO: 2; SEQ ID NO: 3; SEQ ID NO: 4; SEQ ID NO: 5; SEQ ID NO: 6; SEQ ID NO: 7; SEQ ID NO: 8; SEQ ID NO: 9; SEQ ID NO: 10; SEQ ID NO: 11; SEQ ID NO: 12; SEQ ID NO: 13; SEQ ID NO: 14; SEQ ID NO: 15; SEQ ID NO: 16; SEQ ID NO: 17; SEQ ID NO: 18; SEQ ID NO: 19; SEQ ID NO: 20; SEQ ID NO: 21; SEQ ID NO: 22; and SEQ ID NO: 23;